

PCT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION
(PCT Rule 61.2)

Date of mailing (day/month/year) 07 March 2001 (07.03.01)	To: Commissioner US Department of Commerce United States Patent and Trademark Office, PCT 2011 South Clark Place Room CP2/5C24 Arlington, VA 22202 ETATS-UNIS D'AMERIQUE in its capacity as elected Office
International application No. PCT/SE00/01299	Applicant's or agent's file reference P1739PC00
International filing date (day/month/year) 19 June 2000 (19.06.00)	Priority date (day/month/year) 17 June 1999 (17.06.99)
Applicant RULAND, Anders et al	

1. The designated Office is hereby notified of its election made:

in the demand filed with the International Preliminary Examining Authority on:

09 January 2001 (09.01.01)

in a notice effecting later election filed with the International Bureau on:

2. The election was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

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The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer C. Cupello Telephone No.: (41-22) 338.83.38
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(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
11 January 2001 (11.01.2001)

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(51) International Patent Classification⁷: G06F 15/00, (74) Agent: HANSSON THYRESSON PATENTBYRÅ AB;
H04L 29/06, G06F 13/12 P.O. Box 73, S-201 20 Malmö (SE).

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(30) Priority Data: 9902292-3 17 June 1999 (17.06.1999) SE

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,

(71) Applicant (for all designated States except US): MOBIL-

IT, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,

ISYS AB [SE/SE]; Ole Römers väg 16, S-223 70 Lund

TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

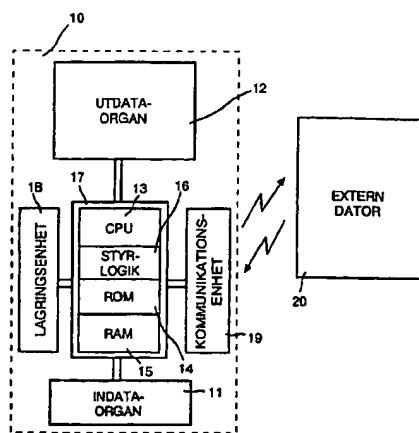
(SE).

Published:

— With international search report.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMPUTER FOR WIRELESS EXECUTION OF INTERNAL OR EXTERNAL APPLICATION PROGRAM



(57) Abstract: A computer (10), comprising an input unit (11) and an output unit (12), at least one processor unit (13) and a first storing means (14) for the storing of the operating system of the computer. A storing unit (18) for storing a first set of application software, and being connected to the processor unit (13), is made electronic or optic. A communication unit (19) for wireless communication is connected to the processor unit (13). The computer is adjustable between a first working mode, in which the processor unit (13) executes a first set of application software loaded from the storing unit (18) in a working memory (15), and a second working mode, in which a second set of application software is executed in an external computer (20), connected via the communication unit. The input unit (11) is connected to the communication unit (19), for control of the second set of application software in the second working mode.

WO 01/02969 A1

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 00/01299

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: G06F 15/00, H04L 29/06, G06F 13/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: G06F, H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GRANSTRÖM, Klas. "Efterlängtad hybrid gör storartad entré". Mikrodatorn [on line], 1999.04.15. [retrieved on 2000.05.31]. Retrieved from the Internet:<URL: http://www.idg.se/mikrodatorn/testcentret/md0599/nokia/>, the whole document --	1-3
A	US 5881239 A (DESGROUILLIERS), 9 March 1999 (09.03.99), the whole document --	1-3
A	EP 0877320 A1 (INTERNATIONAL BUSINESS MACHINES CORPORATION), 11 November 1998 (11.11.98), the whole document --	1-3

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document but published on or after the international filing date	"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 16 October 2000	Date of mailing of the international search report 18 -10- 2000
Name and mailing address of the ISA/ Swedish Patent Office Box 5055, S-102 42 STOCKHOLM Facsimile No. +46 8 666 02 86	Authorized officer Jesper Bergstrand/OGU Telephone No. +46 8 782 25 00

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 00/01299

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0705014 A1 (AT&T CORP.), 3 April 1996 (03.04.96), the whole document --	1-3
A	GB 2327829 A (INTERNATIONAL BUSINESS MACHINES CORPORATION), 3 February 1999 (03.02.99), the whole document --	1-3
A	Patent Abstracts of Japan, abstract of JP 10-301902 A (TOSHIBA CORP), 13 November 1998 (13.11.98), figure -- -----	1-3

INTERNATIONAL SEARCH REPORT
Information on patent family members

03/10/00

International application No.
PCT/SE 00/01299

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 5881239 A	09/03/99	NONE		
EP 0877320 A1	11/11/98	JP 2986097 B	06/12/99	
		JP 10320322 A	04/12/98	
		US 5909569 A	01/06/99	
EP 0705014 A1	03/04/96	CA 2155773 A	22/03/96	
		JP 8095911 A	12/04/96	
		US 5598534 A	28/01/97	
GB 2327829 A	03/02/99	GB 9715966 D	00/00/00	
		GB 9718885 D	00/00/00	

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REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

PCT/ SE 00 / 01299

International Application No.

International Filing Date

19-06-2000

The Swedish Patent Office
PCT International Application

Applicant's or agent's file reference P1739PC00
(if desired) (12 characters maximum)

Box No. I TITLE OF INVENTION

COMPUTER

Box No. II APPLICANT

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

MULTIQ PRODUCTS AB
Ridbanegatan 4
S-213 77 MALMÖ
SWEDEN

This person is also inventor.

Telephone No.

Facsimile No.

Teleprinter No.

State (that is, country) of nationality:
SE

State (that is, country) of residence:
SE

This person is applicant all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box for the purposes of:

Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

RULAND, Anders
Landålettgatan 20
S-212 42 MALMÖ
SWEDEN

This person is:

applicant only

applicant and inventor

inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:
SE

State (that is, country) of residence:
SE

This person is applicant all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box for the purposes of:

Further applicants and/or (further) inventors are indicated on a continuation sheet.

Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:

agent

common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

HANSSON THYRESSON PATENTBYRÅ AB
Box 73
S-201 20 MALMÖ
SWEDEN

Telephone No.

+46-40-300014

Facsimile No.

+46-40-307740

Teleprinter No.

Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

1 9 -06- 2000

Sheet No.

2

Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

If none of the following sub-boxes is used, this sheet should not be included in the request.

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

TIAINEN, Helge
Sättra 1407
S-760 10 BERGSHAMRA
SWEDEN

This person is:

applicant only
 applicant and inventor
 inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:
SEState (that is, country) of residence:
SE

This person is applicant for the purposes of: all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

applicant only
 applicant and inventor
 inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the purposes of: all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

applicant only
 applicant and inventor
 inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the purposes of: all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

applicant only
 applicant and inventor
 inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the purposes of: all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box

Further applicants and/or (further) inventors are indicated on another continuation sheet.

Box No.V DESIGNATION OF STATES

The following designations are hereby made under Rule 4.9(a) (mark the applicable check-boxes; at least one must be marked):

Regional Patent

AP ARIPO Patent: **GH** Ghana, **GM** Gambia, **KE** Kenya, **LS** Lesotho, **MW** Malawi, **SD** Sudan, **SL** Sierra Leone, **SZ** Swaziland, **TZ** United Republic of Tanzania, **UG** Uganda, **ZW** Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT

EA Eurasian Patent: **AM** Armenia, **AZ** Azerbaijan, **BY** Belarus, **KG** Kyrgyzstan, **KZ** Kazakhstan, **MD** Republic of Moldova, **RU** Russian Federation, **TJ** Tajikistan, **TM** Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT

EP European Patent: **AT** Austria, **BE** Belgium, **CH** and **LI** Switzerland and Liechtenstein, **CY** Cyprus, **DE** Germany, **DK** Denmark, **ES** Spain, **FI** Finland, **FR** France, **GB** United Kingdom, **GR** Greece, **IE** Ireland, **IT** Italy, **LU** Luxembourg, **MC** Monaco, **NL** Netherlands, **PT** Portugal, **SE** Sweden, and any other State which is a Contracting State of the European Patent Convention and of the PCT

OA OAPI Patent: **BF** Burkina Faso, **BJ** Benin, **CF** Central African Republic, **CG** Congo, **CI** Côte d'Ivoire, **CM** Cameroon, **GA** Gabon, **GN** Guinea, **GW** Guinea-Bissau, **ML** Mali, **MR** Mauritania, **NE** Niger, **SN** Senegal, **TD** Chad, **TG** Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line)

National Patent (if other kind of protection or treatment desired, specify on dotted line):

<input checked="" type="checkbox"/> AE United Arab Emirates	<input checked="" type="checkbox"/> LR Liberia
<input checked="" type="checkbox"/> AL Albania	<input checked="" type="checkbox"/> LS Lesotho
<input checked="" type="checkbox"/> AM Armenia	<input checked="" type="checkbox"/> LT Lithuania
<input checked="" type="checkbox"/> AT Austria	<input checked="" type="checkbox"/> LU Luxembourg
<input checked="" type="checkbox"/> AU Australia	<input checked="" type="checkbox"/> LV Latvia
<input checked="" type="checkbox"/> AZ Azerbaijan	<input checked="" type="checkbox"/> MA Morocco
<input checked="" type="checkbox"/> BA Bosnia and Herzegovina	<input checked="" type="checkbox"/> MD Republic of Moldova
<input checked="" type="checkbox"/> BB Barbados	<input checked="" type="checkbox"/> MG Madagascar
<input checked="" type="checkbox"/> BG Bulgaria	<input checked="" type="checkbox"/> MK The former Yugoslav Republic of Macedonia
<input checked="" type="checkbox"/> BR Brazil	
<input checked="" type="checkbox"/> BY Belarus	<input checked="" type="checkbox"/> MN Mongolia
<input checked="" type="checkbox"/> CA Canada	<input checked="" type="checkbox"/> MW Malawi
<input checked="" type="checkbox"/> CH and LI Switzerland and Liechtenstein	<input checked="" type="checkbox"/> MX Mexico
<input checked="" type="checkbox"/> CN China	<input checked="" type="checkbox"/> NO Norway
<input checked="" type="checkbox"/> CR Costa Rica	<input checked="" type="checkbox"/> NZ New Zealand
<input checked="" type="checkbox"/> CU Cuba	<input checked="" type="checkbox"/> PL Poland
<input checked="" type="checkbox"/> CZ Czech Republic	<input checked="" type="checkbox"/> PT Portugal
<input checked="" type="checkbox"/> DE Germany	<input checked="" type="checkbox"/> RO Romania
<input checked="" type="checkbox"/> DK Denmark	<input checked="" type="checkbox"/> RU Russian Federation
<input checked="" type="checkbox"/> DM Dominica	<input checked="" type="checkbox"/> SD Sudan
<input checked="" type="checkbox"/> EE Estonia	<input checked="" type="checkbox"/> SE Sweden
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<input checked="" type="checkbox"/> HR Croatia	<input checked="" type="checkbox"/> TT Trinidad and Tobago
<input checked="" type="checkbox"/> HU Hungary	<input checked="" type="checkbox"/> TZ United Republic of Tanzania
<input checked="" type="checkbox"/> ID Indonesia	<input checked="" type="checkbox"/> UA Ukraine
<input checked="" type="checkbox"/> IL Israel	<input checked="" type="checkbox"/> UG Uganda
<input checked="" type="checkbox"/> IN India	<input checked="" type="checkbox"/> US United States of America
<input checked="" type="checkbox"/> IS Iceland	
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<input checked="" type="checkbox"/> KE Kenya	<input checked="" type="checkbox"/> VN Viet Nam
<input checked="" type="checkbox"/> KG Kyrgyzstan	<input checked="" type="checkbox"/> YU Yugoslavia
<input checked="" type="checkbox"/> KP Democratic People's Republic of Korea	<input checked="" type="checkbox"/> ZA South Africa
<input checked="" type="checkbox"/> KR Republic of Korea	<input checked="" type="checkbox"/> ZW Zimbabwe
<input checked="" type="checkbox"/> KZ Kazakhstan	
<input checked="" type="checkbox"/> LC Saint Lucia	
<input checked="" type="checkbox"/> LK Sri Lanka	

Check-boxes reserved for designating States which have become party to the PCT after issuance of this sheet: **DZ** Algeria
 AG Antigua and Barbuda
 BZ Belize **MZ** Mozambique
20/SE

Precautionary Designation Statement: In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time limit.)

19 -06- 2000

Sheet No. 4

Box No. VI PRIORITY CLAIM		<input type="checkbox"/> Further priority claims are indicated in the Supplemental Box.		
Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country	regional application: * regional Office	international application: receiving Office
item (1) (17/06/1999) June 17, 1999	9902292-3	Sweden (SE)		
item (2)				
item (3)				

The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of the present international application is the receiving Office) identified above as item(s): (1)

* Where the earlier application is an ARIPO application, it is mandatory to indicate in the Supplemental Box at least one country party to the Paris Convention for the Protection of Industrial Property for which that earlier application was filed (Rule 4.10(b)(ii)). See Supplemental Box.

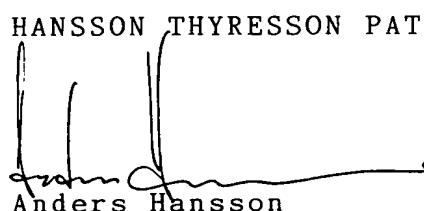
Box No. VII INTERNATIONAL SEARCHING AUTHORITY		Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority):		
Choice of International Searching Authority (ISA) (if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):	Date (day/month/year)	Number	Country (or regional Office)	
ISA / SE	17/06/1999	9902292-3	SE	

Deleted
RO/SE

Box No. VIII CHECK LIST; LANGUAGE OF FILING	
This international application contains the following number of sheets:	This international application is accompanied by the item(s) marked below:
request : 4	<input checked="" type="checkbox"/> fee calculation sheet
description (excluding sequence listing part) : 3	<input type="checkbox"/> separate signed power of attorney
claims : 1	<input type="checkbox"/> copy of general power of attorney; reference number, if any:
abstract : 1	<input type="checkbox"/> statement explaining lack of signature
drawings : 1	<input type="checkbox"/> priority document(s) identified in Box No. VI as item(s):
sequence listing part of description :	<input type="checkbox"/> translation of international application into (language):
	<input type="checkbox"/> separate indications concerning deposited microorganism or other biological material
	<input type="checkbox"/> nucleotide and/or amino acid sequence listing in computer readable form
	<input type="checkbox"/> other (specify):
Total number of sheets : 10	

Figure of the drawings which
should accompany the abstract: 1

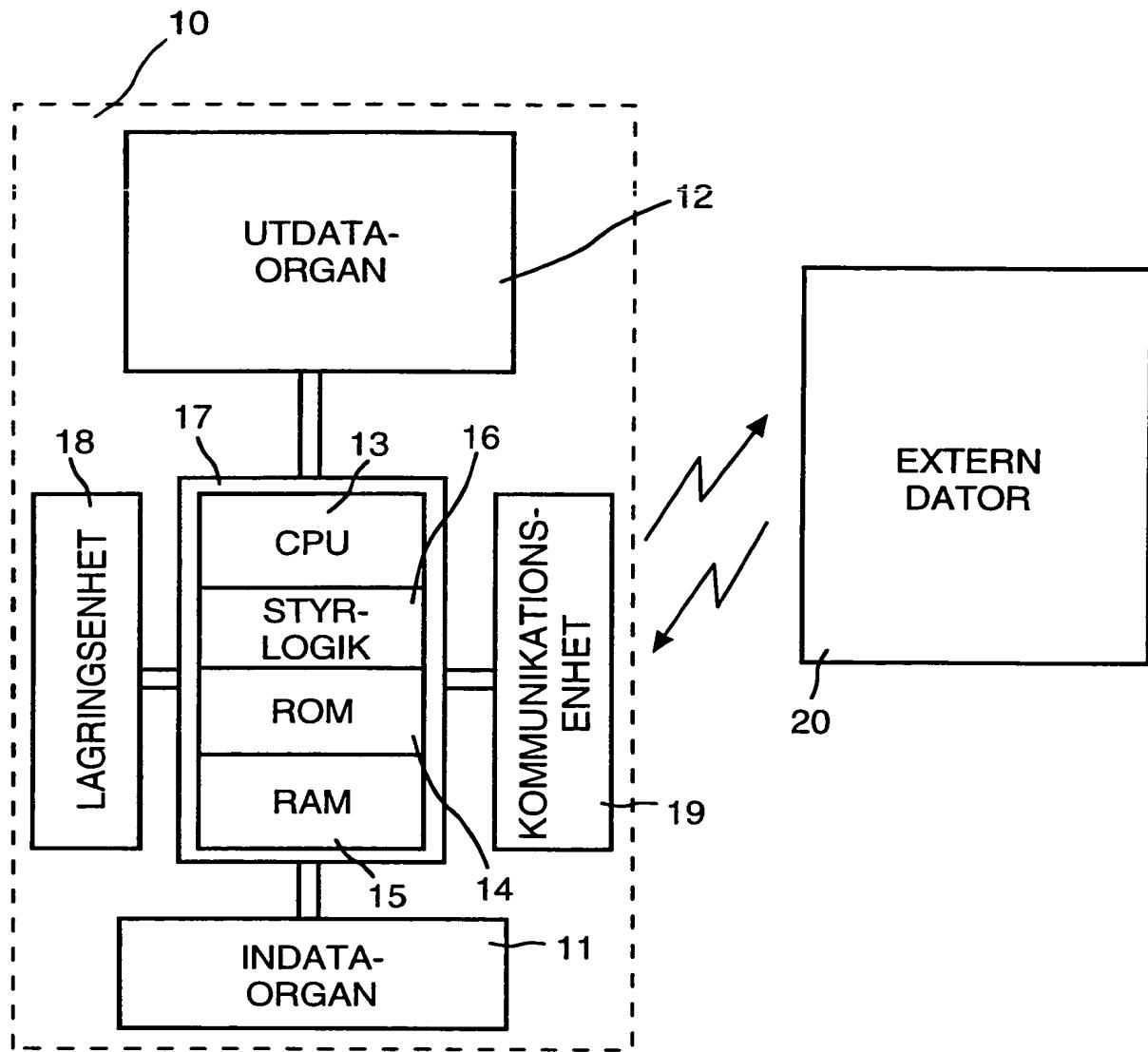
Language of filing of the
international application: Swedish

Box No. IX SIGNATURE OF APPLICANT OR AGENT	
Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).	
HANSSON THYRESSON PATENTBYRÅ AB  Anders Hansson	

For receiving Office use only		
1. Date of actual receipt of the purported international application:	19 -06- 2000	
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:	2. Drawings: <input checked="" type="checkbox"/> received: <input type="checkbox"/> not received:	
4. Date of timely receipt of the required corrections under PCT Article 11(2):		
5. International Searching Authority (if two or more are competent): ISA / SE	6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid.	

For International Bureau use only		
Date of receipt of the record copy by the International Bureau:	19 JULY 2000	(19.07.00)

1
1



DATOR

UPPFINNINGSOMRÅDET

5 Uppfinningen avser en dator, innehållande indataorgan och utdataorgan, åtminstone en processorenhet och första lagringsorgan för lagring av datorns operativsystem.

TEKNIKENS STÅNDPUNKT

10 Utvecklingen inom smådatorområdet har gått mycket snabbt. Det förekommer för närvarande bärbara datorer, som har låg vikt men samma kapacitet och display som större bordsdatorer. En faktor som dock begränsar möjligheterna att minska storlek och energiförbrukning är det skivminne som 15 vanligtvis används för att lagra data och program.

Det har därför utvecklats datorer som saknar mekaniska skivminnen och i stället är utrustade med läsminnen (ROM), vilka utan energiåtgång bevarar sitt minnesinnehåll över tiden. I läsminnet lagras i första hand datorns operativsystem. Ytterligare elektroniska minnesorgan är anordnade för lagring av tillämpningsprogram. Sådana elektroniska minnesorgan kan innehålla eller bestå av så kallade "Flash-minnen". Datorn innehåller och läs-och-skrivminnen (RAM), vilka används i samband med exekvering av tillämpningsprogram och andra program. En stor fördel med denna typ av datorer är att de mycket snabbt försätts i aktivt läge med både operativsystem och tillämpningsprogram lagrade i elektroniska minnen. Med elektroniska minnen avses också sådana magnetiska minnen som saknar mekaniskt rörliga delar samt olika typer av optiska minnen, t ex sådana som utnyttjar holografisk lagring. Det erfordras alltså ingen kommunikation med ett förhållandevi långsamt mekaniskt minne, utan endast med betydligt snabbare minnestyper.

30 En nackdel med ovan beskrivna datorer är operativsystemet är mer begränsat än ett skivminnesbaserat, vilket minskar användbarheten. Ytterligare en nackdel är att även de tillämpningsprogram som kan användas i datorn är mindre omfattande och enklare till sitt utförande och till sin kapacitet.

UPPFINNINGEN I SAMMANFATTNING

Ett syfte med uppföringen är därför att undanröja ovan angivna nack-
5 delar och åstadkomma en dator som möjliggör användning av mera kom-
plexa tillämpningsprogram och utnyttjande av ett kraftfullt operativsystem.

Detta syfte uppnås genom att uppföringen erhållit de i patentkravet 1
angivna särdrag. Ytterligare särdrag och fördelar hos uppföringen framgår
av efterföljande beskrivning, osjälvständiga patentkrav och ritning.

10

UPPFINNINGEN

Figuren visar ett principiellt blockschema över ett utförande av en dator
10 i enlighet med uppföringen. Datorn innehåller en indataenhets 11, som kan
15 vara ett konventionellt tangentbord med små dimensioner, och en utdataen-
het 12, som kan vara en konventionell display. Indataenheten 11 kan också
innehålla någon form av pekdon och mikrofon för att möjliggöra styrning av
operativsystem och tillämpningsprogram på effektivt sätt. Utdataenheten 12
kan också innehålla högtalare.

20 Datorn 10 är också försedd med en processorenhet 13, t ex en kon-
ventionell CPU. Det operativsystem som datorn arbetar med i ett första ar-
betsläge lagras i ett läsminne 14, ett så kallat ROM-minne, eller i ett så kallat
FLASH-minne. Under exekvering av olika program i processorenheten 13
utnyttjas också ett med processorenheten förbundet läs-och-skriv-minne 15,
25 ett så kallat RAM-minne. Datorn innehåller också på konventionellt sätt en
styrlogikenhet 16. Processorenheten 13, läsminnet 14, läs-och-skriv-minnet
och styrlogikenheten 16 ingår tillsammans i en centralenhet 17.

För lagring av data, i form av dokumentfiler och liknande, och tillämp-
ningsprogramvara är en lagringenhet 18 förbunden med centralenheten 17.
30 Lagringenheten 18 är utförd som ett snabbt minne, t ex ett så kallat flash-
minne. Även andra elektroniska eller optiska minnen kan användas för detta
ändamål. Lagringenheten 18 är dock utförd att behålla sitt minneshåll till
mycket låg energiförbrukning, eller ingen energiförbrukning alls i viloläge.

I ett första arbetsläge utnyttjas ovan beskrivna enheter och organ för exekvering av mindre omfattande tillämpningsprogram. Dessa tillämpningsprogram är vanligtvis specialutvecklade för denna typ av dator, och hela exekveringen kan ske med datorn helt fristående. Det i läsminnet 14 lagrade

5 operativsystemet sköter laddning av tillämpningsprogrammen och exekveringen av dem sker genom processorenheten 13. Användaren styr tillämpningsprogrammen via indataenheten 11 och erhåller utdata via utdataenheten 12 på konventionellt sätt.

I ett andra arbetsläge utnyttjas en med centralenheten 17 förbunden

10 kommunikationsenhet 19 för trådlös kommunikation. Företrädesvis är kommunikationsenheten 19 utförd för paketförmedlad kommunikation, t.ex. enligt något av systemen GPRS (General Packet Radio Service), EDGE (Enhanced Data rates for Global Evolution) eller UMTS (Universal Mobile Telecommunication System). Via kommunikationsenheten 19 står datorn 10 i förbindelse med en extern dator 20. Den externa datorn 20 är mera kraftfull än datorn 10 och är konfigurerad för att som en server exekvera tillämpningsprogram åt andra datorer, så kallade klienter.

I det andra arbetsläget används centralenheten 17 hos datorn 10 i första hand för att via kommunikationsenheten 19 hantera erforderlig kommunikation mellan datorn 10 och den externa datorn 20. I kommunikationen ingår överföring av användaridata, som användaren tillför datorn via indataenheten 11, till den externa datorn 20 och mottagning av bild- och ljudinformaton, som ska göras tillgänglig för användare via utdataenheten 12.

Exekveringen sker i detta arbetsläge i den externa datorn 20, som kan

25 vara en mycket kraftfull dator. Det kommunikationsgränssnitt som används för kommunikationen mellan datorn 10 och den externa datorn 20 behöver inte vara särskilt kraftfullt, eftersom inga datamängder eller program överförs. I princip överförs endast användarens styrdatal och sådan utdata som är intressanta för användaren. Utdata innehåller främst data för uppdatering av en

30 display.

PATENTKRAV

1. Dator (10), innehållande en indataenhet (11) och en utdataenhet (12), åtminstone en processorenhet (13) och första lagringsorgan (14) för lagring av datorns operativsystem, *kännetecknad* av
att en med processorenheten (13) förbunden lagringsenhet (18) för lagring av en första uppsättning tillämpningsprogram är utförd elektronisk eller optisk,
- 10 att en kommunikationsenhet (19) för trådlös kommunikation är förbunden med processorenheten (13),
att datorn är inställbar mellan ett första arbetsläge, i vilket processorenheten (13) exekverar en från lagringsenheten (18) i ett arbetsminne (15) laddad första uppsättning tillämpningsprogram, och ett andra arbetsläge, i vilket en andra uppsättning tillämpningsprogram exekveras i en via kommunikationsenheten ansluten yttre dator (20), och
15 att indataenheten (11) är förbunden med kommunikationsenheten (19) för styrning av den andra uppsättningen tillämpningsprogram i det andra arbetsläget.
- 20 2. Dator i enlighet med krav 1, varvid kommunikationsenheten (19) innehåller gränssnitt för paketförmedlad kommunikation.
- 25 3. Dator i enlighet med krav 2, varvid kommunikationsenheten (19) innehåller gränssnitt för kommunikation via GPRS, EDGE eller UMTS.

SAMMANDRAG

Dator (10), innehållande en indataenhet (11) och en utdataenhet (12),
åtminstone en processorenhet (13) och första lagringsorgan (14) för lagring
5 av datorns operativsystem. En med processorenheten (13) förbunden lag-
ringsenhet (18) för lagring av en första uppsättning tillämpningsprogram är
utförd elektronisk eller optisk. En kommunikationsenhet (19) för trådlös kom-
munikation är förbunden med processorenheten (13). Datorn är inställbar
mellan ett första arbetsläge, i vilket processorenheten (13) exekverar en från
10 lagringsenheten (18) i ett arbetsminne (15) laddad första uppsättning tillämp-
ningsprogram, och ett andra arbetsläge, i vilket en andra uppsättning tillämp-
ningsprogram exekveras i en via kommunikationsenheten ansluten yttre da-
tor (20). Indataenheten (11) är förbunden med kommunikationsenheten (19)
för styrning av den andra uppsättningen tillämpningsprogram i det andra ar-
15 betsläget.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

REC'D 29 OCT 2001

WIPO

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P1739PC00	FOR FURTHER ACTION		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/SE00/01299	International filing date (day/month/year) 19/06/2000	Priority date (day/month/year) 17/06/1999	
International Patent Classification (IPC) or national classification and IPC G06F15/00			
Applicant MOBILISYS AB et al.			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I Basis of the report
- II Priority
- III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV Lack of unity of invention
- V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI Certain documents cited
- VII Certain defects in the international application
- VIII Certain observations on the international application

Date of submission of the demand 09/01/2001	Date of completion of this report 25.10.2001
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Emander, K Telephone No. +49 89 2399 2044



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/SE00/01299

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):
Description, pages:

1-4 as originally filed

Claims, No.:

1-3 as originally filed

Drawings, sheets:

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/SE00/01299

the drawings, sheets:

5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):
(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims 2, 3
	No:	Claims 1
Inventive step (IS)	Yes:	Claims
	No:	Claims 2, 3
Industrial applicability (IA)	Yes:	Claims 1-3
	No:	Claims

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

R Item V

**Reasoned statement under Article 35(2) with regard to novelty, inventive step or
industrial applicability; citations and explanations supporting such statement**

1. The following document is referred to:

D1: 'Efterlangtad hybrid gor storartad entre','GRANSTROM
KLAS','MIKRODATORN',",//15-04-1999,-,

2. Document D1 discloses (see page 1, line 1 to page 2, line 34):

A computer (page 1, lines 5 to 8), comprising an input unit (page 1, lines 20 to 39) and an output unit (page 1, lines 20 to 39), at least one processor unit (implicit on page 2, lines 7 to 12) and a first storing means (implicit on page 2, lines 7 to 12), [suitable] for storing the operating system of the computer, the computer further comprising

a storing unit [suitable] for storing a first set of application software, and being connected to the processor unit and being made optic (page 2, lines 23 to 34); a communication unit (page 2, lines 29 to 32) [suitable] for wireless communication, connected to the processor unit;

a first working mode (page 2, lines 26 to 27), in which the processor unit executes a first set of application software loaded from the storing unit in a working memory, and a second working mode (page 2, lines 25 to 34), in which a second set of application software is executed in an external computer, connected via the communication unit;

the input unit being connected to the communication unit, for control of the second set of application software in the second working mode (implicit on page 2, lines 25 to 34, since this connection is necessary for a user-controlled file transmission).

Therefore, document D1 discloses all features in claim 1, thus rendering claim 1 not novel (Article 33(2) PCT).

3. Dependent claims 2 and 3 do not appear to contain any additional features which satisfy the criterion set forth in Article 33(3) PCT in respect of inventive step, since

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/SE00/01299

said claims seem to contain nothing but implementation details within the normal practice of the skilled person.

Re Item VII

Certain defects in the international application

To meet the requirements of Rule 5.1(a)(ii) PCT, the document D1 should have been identified in the description and the relevant background art disclosed therein should have been briefly discussed.

Re Item VIII

Certain observations on the international application

In claim 1, the storing unit (18) and the communication unit (19) are not clearly part of the claimed entity, since it is not clear whether these units belong to the computer or not (Article 6 PCT). Cf. the clearer wording in section Re Item V.